Amendments to the Claims

1. (previously presented) A method of increasing one or more of hair follicle development, tooth development, or sweat gland development, in a tissue, comprising increasing EDA1-II activity in the tissue.

2. (previously presented) The method of claim 1, wherein the method is a method of increasing hair follicle development.

3. (previously presented) The method of claim 1, wherein the method is a method of increasing tooth development.

4. (previously presented) The method of claim 1, wherein the method is a method of increasing sweat gland development.

5. - 21. (canceled)

22. (previously presented) The method of claim 1, wherein increasing EDA1-II activity comprises administering an amount of EDA1-II protein to the tissue sufficient to promote one or more of hair follicle development, tooth development, or sweat gland development.

23. (original) The method of claim 22, wherein the EDA1-II protein is a recombinant protein.

24. (original) The method of claim 22, wherein the EDA1-II protein comprises an amino acid sequence having at least 95% identity to SEQ ID NO: 2 and which encodes a polypeptide that enhances EDA1-II activity in the tissue.

25. (original) The method of claim 24, wherein the amino acid sequence comprises an amino acid sequence having at least 98% identity to SEQ ID NO: 2 and which encodes a polypeptide that enhances EDA1-II activity in the tissue.

26. (original) The method of claim 25, wherein the amino acid sequence comprises an amino acid sequence shown in SEQ ID NO: 2.

27. - 40. (canceled)

41. (previously presented) The method of claim 1, wherein the tissue is a tissue of a subject suffering from an ectodermal disease.

42. (previously presented) The method of claim 41, wherein the ectodermal disease is X-linked hypohidrotic ectodermal dysplasia (XLHED), autosomal hypohidrotic ectodermal dysplasia (HED), or alopecia.

43. - 58. (canceled)

59. The method of claim 22, wherein the EDA1-II protein comprises at least 153 amino acids of SEQ ID NO: 2.

60. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises at least 175 amino acids of SEQ ID NO: 2.

61. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises at least 200 amino acids of SEQ ID NO: 2.

62. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises at least 300 amino acids of SEQ ID NO: 2.

63. (previously presented) The method of claim 22, wherein the EDA1-II protein is a fusion protein.

64. (canceled)

65. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises amino acids 239-391 of SEQ ID NO: 2.

66. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises amino acids 153-391 of SEQ ID NO: 2.

67. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises amino acids 133-391 of SEQ ID NO: 2.

68. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises the C-terminal 240 amino acids of SEQ ID NO: 2.

69. (previously presented) The method of claim 22, wherein the EDA1-II protein comprises the C-terminal 211 amino acids of SEQ ID NO: 2.

70. (canceled)

71. (canceled)

72. (new) A method of increasing hair follicle development in a tissue, comprising administering an amount of EDA1-II protein to the tissue sufficient to promote hair follicle development , wherein the EDA1-II protein comprises at least 153 amino acids of SEQ ID NO: 2.

73. (new) The method of claim 72, wherein the EDA1-II protein comprises amino acids 239-391 of SEQ ID NO: 2.

74. (new) The method of claim 72, wherein administering an amount of EDA1-II protein to the tissue comprises intraperitoneal administration.